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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,395	06/29/2001	Brian K. Langendorf	42390 P10570	1007

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EXAMINER

MYERS, PAUL R

ART UNIT PAPER NUMBER

2189

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,395

Applicant(s)

LANGENDORF ET AL.

Examiner

Paul R. Myers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 recites the limitation "said storage". There is insufficient antecedent basis for this limitation in the claim. Claim 7 depends on claim 1 a first storage was introduced in claim 2 and a second storage was introduced in claim 3. The examiner will assume the storage is supposed to be the said first storage and claim 7 was supposed to be dependant upon claim 2.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by the Intel

440BX AGPset: 82443BX Host Bridge Controller. Herein after 82443BX.

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In regards to claim 1, 12, 18, 21 and 24-25: 82443BX teaches an apparatus comprising: an interface (Page iv Host interface) for directly coupling to a host bus (Host bus) having one or more processors (Page iii multiprocessor support); a device (Page 3-5 "Virtual Host-to-PCI Bridge" identified as device 1 also the AGP interface note 82443BX also has a device 0) coupled to the interface to perform one or more functions (AGP interface functions page 3-1), said device appearing as a virtual PCI device (82443BX calls it virtual) logically residing on a PCI bus (PCI bus 0) that is coupled to the host bus through a host-to-PCI bridge (Host-to-PCI bridge); and a monitor circuit (Decoder Page 1-2) coupled to said interface and said device to track host bus cycles (Host cycles) initiated by at least one of the processors coupled to the host bus, to identify processor initiated host bus cycles targeted to the virtual PCI device and to generate one or more control signals (DEVSEL#) to respond, as the virtual PCI device, to said one or more said identified host bus cycles targeted to said virtual PCI device.

In regards to claim 2: 82443BX teaches plural storages associated with host bus read and write cycles (Page v-vi Registers) addressed to the virtual PCI device (Device 0 or Device 1).

In regards to claim 3: 82443BX teaches a second storage for storing data transferred to said virtual device (in-order queue).

In regards to claim 5: 82443BX teaches an internal bus.

In regards to claim 6, 16, 30: 82443BX teaches the virtual device being a virtual PCI-to-PCI bridge.

In regards to claim 9, 14: 82443BX teaches I/O address space.

In regards to claims 10-11, 15, 19, 23, 26-27, 29: 82443BX teaches configuration/control registers and configuring.

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In regards to claim 17, 22, 28: 82443BX teaches identifying the device and bus number of the virtual device (Device 0 or 1 and PCI bus 0). 82443BX also teaches handling snoop requests.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over 82443BX.

In regards to claim 4: 82443BX teaches an external processor. 82443BX also teaches said first and second storage, said monitor circuit and said virtual device all being integrated on a single chip. 82443BX does not teach the processor also being integrated on the chip. MPEP 2144.04 V B states barring some unexpected results to make integral is not a patentable distinction.

In regards to claim 7, 13 and 20: 82443BX teaches said storage being registers. Official notice is taken that random access memories are well known in the art. It would have been obvious to use a random access memory because this would have allowed greater storage capacity. 82443BX teaches an array of registers.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over 82443BX in view of Huott et al PN 5,659,551.

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In regards to claim 8: 82443BX teaches configuration/control registers. 82443BX does not teach mirror registers of these registers. Huott et al teaches the use of mirror registers for mirroring the configuration registers to repair configuration in the case of errors. It would have been obvious to include mirror registers of the configuration because this would have allowed for error correction.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 703 305 9656. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703 305 4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 3900.

PRM
September 21, 2003



PAUL R. MYERS
PRIMARY EXAMINER